

ABSTRACT

An electric power assist steering system includes an electric motor coupled to a steering mechanism via a roller gear mechanism. The roller gear mechanism transfers power from an electric motor output shaft to a roller pinion gear for a rack and pinion steering mechanism. In an embodiment, a roller pinion gear for use in a power assist steering system comprises a roller wheel having a plurality of radially projecting teeth about its periphery, wherein the teeth comprise pins rotatably mounted in and projecting from the periphery of the roller wheel. The present invention increases the efficiency of power assist steering systems and of vehicles utilizing same.

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